

# Work Order ID 115360

March-27-14 7:48:08 AM

**\*115360\***

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Item ID: D3117-3-0980

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Seal98"

Start Date: 3/27/14

Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 3/27/14

Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: *N*

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D3117	Rev C U/R <i>OK d/14/3/27</i>								
100	Small Fab	0.00							
<b>*100*</b>									
Packaging	<b>Memo</b>	0.00							
Packaging	1 < D3237-3-0980 X D3237-1-0980 B <i>105247</i> PULL FROM STK: RE-IDENTIFY AS D3117-3-0980 USING NEW B/N								
130	QC21- Final Inspection - Work Order Release	0.00							
<b>*130*</b>									
QC	<b>Memo</b>	0.00							
Quality Control									

*14/3/27 (4) OK*

*14-03-27*

*MF 14-3-27*

# Picklist Print

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March-27-14 7:48:07 AM

Work Order ID: 115360

\*115360\*

Parent Item: D3117-3-0980

\*D3117-3-0980\*

Parent Item Name: Seal98"

Start Date: 3/27/14

Required Date: 3/27/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 10.11.02 as per revC DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3237-1-0980		Manufactured	No				Each	0.0000		1			
*D3237-1-0980*									**	B			
Seal-98"													

B

D3237-3

44984

1/05247

DAS  
32  
9-89

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: JA Date: 14/04/09QA Closed: JA Date: 14/4/14

Work Order: <u>115360</u>  Part No. <u>D3117-3-098</u>  NCR No. <u>14-3690</u>	<b>DISPOSITION</b>  Rework <input checked="" type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data		14/3/27	100	1	LOAD TEST DONE PER ADR (14/3/26) SHOWS THAT D3237-3 IS FUNCTIONALLY EQUIVALENT TO D3117-3. Ref attached ADR	DAS 12 9-89  14/3/27	Acceptable to re-identify D3237-3 as D3117-3	DAS 12 9-89  14/3/27	DAS 27 9-89  14/3/27	DAS 27 9-89  14/3/27
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

## FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		
<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

**AMENDMENT DESIGN REVIEW (ADR)**Part/Installation No.: D3117-1/-3 Rev: D Design Review No.: \_\_\_\_\_ Date: 14.03.26Project Number: ENG5105MAR Project Description/Title: SEAL RETAINER ANDECN Project Manager: M. BELLAVANCE SEAL FILLER  
(D412-694)

Persons Present	Title	Initial
M. PETSCHÉ	Design Manager	
M. BELLAVANCE	Engineering Project Manager	
D. SHEPHERD	Chief Engineer (DE #02)	
	Manufacturing Manager	
P. SMITH	Quality Manager	
C. PROVENCAL	Mechanical Designer	
D. STOW		

**Comments**

VIP Rubber advised that they were required to come up with new tooling for manufacturing of D3117-1/-3 Seal Retainer/Filler. Proofing of samples is required by DART in accordance with TP-D412-694-2 Rev. A.

During the testing procedures dated 14.03.13, the D3117-1-0980/-3-0980 Seals B114784/B114785 passed the Phase 1 Limit Load but failed the Phase 1 Ultimate Load.

Due to the urgency of supplying replacement parts to a customer, DART conducted the following test on 14.03.24: D3117-1-0980 B84497 was installed with window onto Spacedoor using D3237-1-0980 B105247. This setup passed all TP-D412-694-2 Rev. A window test phases. The window survived the Limit Test (103.5#) without permanent deformation and the Ultimate Load test (160.5#) without failure. The window released with a load of 49.5# when applied locally at bottom corner.

Other than some dimensional changes reflecting VIP Rubber tooling update, revision of D3117 to Rev. D will also include that D3237-1 can be used as an acceptable substitute for D3117-3.

These changes affect compliance to FAR 29.305/307/809 for which DE#02 is delegated. Therefore, approval by DE#02 is acceptable.

Key Tasks (Check or N/A)	Check	Responsible	Completion Date
Review Outstanding TSR/NCR/CAR/PAR	Y	MB	
Fill out Criteria/Constraints Form - Inputs	N/A		
Fill out Project Evaluation Form	N/A		
D-Part creation/revision	Y	MB	
Get Manufacturing Input	N/A		
First Article Inspection	Y	ED	
Fit and Function Test	Y	MB/DSTOW	14.03.26
Structural Test	Y	DSTOW/CP	14/3/26
Reports (Compliance, Loads, Stress, Conformity, DSI)	N/A		
Check Drawings against all QSIs	Y	MB	
Review Criteria/Constraints Form	N/A		
Revision to existing approval	N/A		
Close Amendment Project	Y	MB	

**Conclusion:**

Revise drawing D3117 to Rev. D and release on ECN: